

WEST**Generate Collection****Search Results - Record(s) 1 through 5 of 5 returned.**

1. Document ID: US 6040587 A

L15: Entry 1 of 5

File: USPT

Mar 21, 2000

US-PAT-NO: ~~6040587~~

DOCUMENT-IDENTIFIER: US 6040587 A

TITLE: Spin-polarized electron emitter having semiconductor opto-electronic layer with split valence band

DATE-ISSUED: March 21, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Kishino; Katsumi	Yokohama	N/A	N/A	JPX
Kato; Toshihiro	Kasugai	N/A	N/A	JPX

US-CL-CURRENT: 257/11; 257/248, 257/436

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KOMC	Dram Desc	Image
------	-------	----------	-------	--------	----------------	------	-----------	--------	------	-----------	-------

2. Document ID: US ~~6008502~~ A

L15: Entry 2 of 5

File: USPT

Dec 28, 1999

US-PAT-NO: 6008502

DOCUMENT-IDENTIFIER: US 6008502 A

TITLE: Diamond electron emitting device having an insulative electron supply layer

DATE-ISSUED: December 28, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Deguchi; Masahiro	Osaka	N/A	N/A	JPX
Hiraki; Akio	Kochi	N/A	N/A	JPX
Ito; Toshimichi	Osaka	N/A	N/A	JPX
Hatta; Akimitsu	Osaka	N/A	N/A	JPX
Eimori; Nobuhiko	Aichi	N/A	N/A	JPX
Kitabatake; Makoto	Nara	N/A	N/A	JPX

US-CL-CURRENT: 257/10; 257/27

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Claims](#) | [KMC](#) | [Draw Desc](#) | [Image](#)

3. Document ID: US 5747862 A

L15: Entry 3 of 5

File: USPT

May 5, 1998

US-PAT-NO: 5747862

DOCUMENT-IDENTIFIER: US 5747862 A

TITLE: Spin-polarized electron emitter having semiconductor opto-electronic layer with split valence band and reflecting mirror

DATE-ISSUED: May 5, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Kishino; Katsumi	Susukino 2-chome, Midori-ku,	N/A	N/A	JPX
Kato; Toshihiro	Yokohama-shi, Kanagawa-ken	N/A	N/A	JPX
				Kasugai

US-CL-CURRENT: 257/436; 250/423P, 257/11, 313/113, 313/310

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Claims](#) | [KMC](#) | [Draw Desc](#) | [Image](#)

4. Document ID: US 5362972 A

L15: Entry 4 of 5

File: USPT

Nov 8, 1994

US-PAT-NO: 5362972

DOCUMENT-IDENTIFIER: US 5362972 A

TITLE: Semiconductor device using whiskers

DATE-ISSUED: November 8, 1994

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP	CODE	COUNTRY
Yazawa; Masamitsu	Yokohama	N/A	N/A		JPX
Hiruma; Kenji	Tokorozawa	N/A	N/A		JPX
Katsuyama; Toshio	Ome	N/A	N/A		JPX
Futigami; Nobutaka	Mitaka	N/A	N/A		JPX
Matsumoto; Hidetoshi	Kodaira	N/A	N/A		JPX
Kakibayashi; Hiroshi	Nagareyama	N/A	N/A		JPX
Koguchi; Masanari	Higashikurume	N/A	N/A		JPX
Morgan; Gerard P.	Galway	N/A	N/A		IEX
Ogawa; Kensuke	Hachioji	N/A	N/A		JPX

US-CL-CURRENT: 257/13, 257/14, 257/17, 257/20, 257/21, 257/22,
257/24, 257/27, 257/95
[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Claims](#) | [KMC](#) | [Draw Desc](#) | [Image](#)
 5. Document ID: US 4107724 A

L15: Entry 5 of 5 File: USPT Aug 15, 1978

US-PAT-NO: 4107724

DOCUMENT-IDENTIFIER: US 4107724 A

TITLE: Surface controlled field effect solid state device

DATE-ISSUED: August 15, 1978

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP	CODE	COUNTRY
Ralph; John Ernest	Crawley Down	N/A	N/A		GB2

US-CL-CURRENT: 257/43, 136/250, 257/184, 257/66

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Claims](#) | [KMC](#) | [Draw Desc](#) | [Image](#)

Generate Collection

Terms	Documents
114	5

10

Documents, starting with Document:

5

Display Format:

WEST[Help](#)[Logout](#)[Interrupt](#)[Main Menu](#) | [Search Form](#) | [Posting Counts](#) | [Show S Numbers](#) | [Edit S Numbers](#) | [Preferences](#)**Search Results -**[Terms](#) | [Documents](#)

l3 and l4 | 1

Database:

US Patents Full-Text Database
JPO Abstracts Database
EPO Abstracts Database
Derwent World Patents Index
IBM Technical Disclosure Bulletins

13 and 14

[Refine Search](#)[Clear](#)**Search History****Today's Date: 11/4/2000**

<u>DB Name</u>	<u>Query</u>	<u>Hit Count</u>	<u>Set Name</u>
USPT	l3 and l4	1	<u>L5</u>
USPT	second near gap	4842	<u>L4</u>
USPT	voltage and l1 and l2	163	<u>L3</u>
USPT	irradiate or irradiating	36217	<u>L2</u>
USPT	electron adj emitting	2343	<u>L1</u>

WEST**Generate Collection****Search Results - Record(s) 1 through 1 of 1 returned.**

1. Document ID: US 4912738 A

L11: Entry 1 of 1 File: USPT Mar 27, 1990

US-PAT-NO: 4912738

DOCUMENT-IDENTIFIER: US 4912738 A

TITLE: Magnetically energized pulser

DATE-ISSUED: March 27, 1990

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Turchi; Peter J.	Alexandria	VA	N/A	N/A

US-CL-CURRENT: 378/121; 313/157, 315/62, 378/136

Full Title CIT.1 PEV.1 CLS.1 PEF.1 DRAW.1

Generate Collection

Terms	Documents
15	1

Documents, starting with Document:

Display Format:

WEST[Help](#)[Logout](#)[Interrupt](#)[Main Menu](#) | [Search Form](#) | [Posting Counts](#) | [Show S Numbers](#) | [Edit S Numbers](#) | [Preferences](#)**Search Results -**[Terms](#)[Documents](#)

17 and ((257/\$)! .CCLS.)

7

Database:

US Patents Full Text Database
JPO Abstracts Database
EPO Abstracts Database
Derwent World Patents Index
IBM Technical Disclosure Bulletins

17 and ((257/\$)! .CCLS.)

[Refine Search:](#)[Clear](#)**Search History****Today's Date: 11/4/2000**

<u>DB Name</u>	<u>Query</u>	<u>Hit Count</u>	<u>Set Name</u>
USPT	l7 and ((257/\$)! .CCLS.)	7	<u>L10</u>
USPT	l7 and ((427/\$)! .CCLS.)	4	<u>L9</u>
USPT	l7 and ((438/\$)! .CCLS.)	0	<u>L8</u>
USPT	l3 and gap	66	<u>L7</u>
USPT	l4 and gap	4842	<u>L6</u>
USPT	l3 and l4	1	<u>L5</u>
USPT	second near gap	4842	<u>L4</u>
USPT	voltage and l1 and l2	163	<u>L3</u>
USPT	irradiate or irradiating	36217	<u>L2</u>
USPT	electron adj emitting	2343	<u>L1</u>

WEST**Generate Collection****Search Results - Record(s) 1 through 4 of 4 returned.** 1. Document ID: US 6106906 A

L12: Entry 1 of 4 File: USPT Aug 22, 2000

US-PAT-NO: 6106906

DOCUMENT-IDENTIFIER: US 6106906 A

TITLE: Material for forming electroconductive film, method of forming electroconductive film by using the same and method of manufacturing electron-emitting device, electron source and image-forming apparatus

DATE-ISSUED: August 22, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Matsuda; Hiroshi	Isehara	N/A	N/A	JPX
Fujiwara; Ryoji	Chigasaki	N/A	N/A	JPX

US-CL-CURRENT: 427/558; 427/126.1, 427/385.5, 556/136, 556/138[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Claims](#) | [KOMC](#) | [Draw. Desc](#) | [Image](#) 2. Document ID: US 6068883 A

L12: Entry 2 of 4 File: USPT May 30, 2000

US-PAT-NO: 6068883

DOCUMENT-IDENTIFIER: US 6068883 A

TITLE: Process for forming diamond films by nucleation

DATE-ISSUED: May 30, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Deguchi; Masahiro	Osaka	N/A	N/A	JPX
Kitabatake; Makoto	Nara	N/A	N/A	JPX
Kurokawa; Hideo	Osaka	N/A	N/A	JPX
Shiratori; Tetsuya	Osaka	N/A	N/A	JPX

US-CL-CURRENT: 427/249.12; 427/249.8, 427/535, 427/553, 427/560

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Claims](#) | [KMC](#) | [Draw Desc](#) | [Image](#)

3. Document ID: US 6063453 A

L12: Entry 3 of 4

File: USPT

May 16, 2000

US-PAT-NO: 6063453

DOCUMENT-IDENTIFIER: US 6063453 A

TITLE: Method of manufacturing electron-emitting device and image-forming apparatus comprising such devices

DATE-ISSUED: May 16, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Tomida; Yoshinori	Atsugi	N/A	N/A	JPX
Kawade; Hisaaki	Yokohama	N/A	N/A	JPX
Niibe; Masahito	Himeji	N/A	N/A	JPX
Ohnishi; Toshikazu	Machida	N/A	N/A	JPX
Okamura; Yoshimasa	Odawara	N/A	N/A	JPX

US-CL-CURRENT: 427/532, 427/253, 427/255.19, 427/255.31,
427/545, 427/546, 427/586, 427/597, 427/78

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Claims](#) | [KMC](#) | [Draw Desc](#) | [Image](#)

4. Document ID: US 5716618 A

L12: Entry 4 of 4

File: USPT

Feb 10, 1998

US-PAT-NO: 5716618

DOCUMENT-IDENTIFIER: US 5716618 A

TITLE: Solution for fabrication of electron-emitting devices, manufacture method of electron-emitting devices, and manufacture method of image-forming apparatus

DATE-ISSUED: February 10, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Tomida; Yoshinori	Atsugi	N/A	N/A	JPX
Hashimoto; Hiroyuki	Yokohama	N/A	N/A	JPX

US-CL-CURRENT: 427/126.1, 427/126.5, 427/126.6, 556/136,
556/138, 556/49

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Claims](#) | [KMC](#) | [Draw Desc](#) | [Image](#)

Generate Collection

Terms	Documents
19	4

Display

10

Documents, starting with Document: **4**

Display Format: **CIT** **Change Format**

WEST**Generate Collection****Search Results - Record(s) 1 through 7 of 7 returned.** 1. Document ID: US 6040587 A

L13: Entry 1 of 7 File: USPT Mar 21, 2000
US-PAT-NO: 6040587
DOCUMENT-IDENTIFIER: US 6040587 A

TITLE: Spin-polarized electron emitter having semiconductor opto-electronic layer with split valence band

DATE-ISSUED: March 21, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Kishino; Katsumi	Yokohama	N/A	N/A	JPX
Kato; Toshihiro	Kasugai	N/A	N/A	JPX

US-CL-CURRENT: 257/11; 257/248, 257/436

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Claims](#) | [KMC](#) | [Drawn Desc](#) | [Image](#)

 2. Document ID: US 6008502 A

L13: Entry 2 of 7 File: USPT Dec 28, 1999
US-PAT-NO: 6008502
DOCUMENT-IDENTIFIER: US 6008502 A

TITLE: Diamond electron emitting device having an insulative electron supply layer

DATE-ISSUED: December 28, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Deguchi; Masahiro	Osaka	N/A	N/A	JPX
Hiraki; Akio	Kochi	N/A	N/A	JPX
Ito; Toshimichi	Osaka	N/A	N/A	JPX
Hatta; Akimitsu	Osaka	N/A	N/A	JPX
Eimori; Nobuhiro	Aichi	N/A	N/A	JPX
Kitabatake; Makoto	Nara	N/A	N/A	JPX

US-CL-CURRENT: 257/10; 257/77

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Claims](#) | [KMC](#) | [Draw Desc](#) | [Image](#)

3. Document ID: US 5747862 A

L13: Entry 3 of 7

File: USPT

May 5, 1998

US-PAT-NO: 5747862

DOCUMENT-IDENTIFIER: US 5747862 A

TITLE: Spin-polarized electron emitter having semiconductor opto-electronic layer with split valence band and reflecting mirror

DATE-ISSUED: May 5, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Kishino; Katsumi	Susukino 2-chome, Midori-ku,	N/A	N/A	JPX
Kato; Toshihiro	Yokohama-shi, Kanagawa-ken	N/A	N/A	JPX
				Kasugai

US-CL-CURRENT: 257/436; 250/423P, 257/11, 313/113, 313/310

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Claims](#) | [KMC](#) | [Draw Desc](#) | [Image](#)

4. Document ID: US 5362972 A

L13: Entry 4 of 7

File: USPT

Nov 8, 1994

US-PAT-NO: 5362972
 DOCUMENT-IDENTIFIER: US 5362972 A

TITLE: Semiconductor device using whiskers

DATE-ISSUED: November 8, 1994

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP	CODE	COUNTRY
Yazawa; Masamitsu	Yokohama	N/A	N/A		JPX
Hiruma; Kenji	Tokorozawa	N/A	N/A		JPX
Katsuyama; Toshio	Ome	N/A	N/A		JPX
Futigami; Nobutaka	Mitaka	N/A	N/A		JPX
Matsumoto; Hidetoshi	Kodaira	N/A	N/A		JPX
Kakibayashi; Hiroshi	Nagareyama	N/A	N/A		JPX
Koguchi; Masanari	Higashikurume	N/A	N/A		JPX
Morgan; Gerard P.	Galway	N/A	N/A		IEX
Ogawa; Kensuke	Hachioji	N/A	N/A		JPX

US-CL-CURRENT: 257/13, 257/14, 257/17, 257/20, 257/21, 257/22,
257/24, 257/27, 257/95

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Claims](#) | [KMC](#) | [Draw Desc](#) | [Image](#)

5. Document ID: US 5304815 A

L13: Entry 5 of 7

File: USPT

Apr 19, 1994

US-PAT-NO: 5304815

DOCUMENT-IDENTIFIER: US 5304815 A

TITLE: Electron emission elements

DATE-ISSUED: April 19, 1994

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP	CODE	COUNTRY
Suzuki; Akira	Yokohama	N/A	N/A		JPX
Tsukamoto; Takeo	Atsugi	N/A	N/A		JPX
Shimizu; Akira	Inagi	N/A	N/A		JPX
Sugata; Masao	Yokohama	N/A	N/A		JPX
Shimoda; Isamu	Zama	N/A	N/A		JPX
Okunuki; Masahiko	Tokyo	N/A	N/A		JPX

US-CL-CURRENT: 257/10, 250/214VT, 257/435, 257/462, 313/465,
313/501, 313/524, 349/33

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Claims](#) | [KMC](#) | [Draw Desc](#) | [Image](#)

6. Document ID: US 4906894 A

L13: Entry 6 of 7

File: USPT

Mar 6, 1990

US-PAT-NO: 4906894

DOCUMENT-IDENTIFIER: US 4906894 A

TITLE: Photoelectron beam converting device and method of driving the same

DATE-ISSUED: March 6, 1990

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Miyawaki; Mamoru	Tokyo	N/A	N/A	JPX
Masuda; Yukio	Atsugi	N/A	N/A	JPX
Arai; Ryuichi	Sagamihara	N/A	N/A	JPX
Mizusawa; Nobutoshi	Sagamihara	N/A	N/A	JPX
Ishiwatari; Takahiko	Yamato	N/A	N/A	JPX
Oda; Hitoshi	Yokohama	N/A	N/A	JPX

US-CL-CURRENT: 313/542; 257/10, 257/461, 257/622, 313/366,
313/373, 313/380, 313/383, 313/384, 313/499, 313/501, 313/507 ,
313/523[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Claims](#) | [KMC](#) | [Drawn Desc](#) | [Image](#) 7. Document ID: US 4107724 A

L13: Entry 7 of 7

File: USPT

Aug 15, 1978

US-PAT-NO: 4107724

DOCUMENT-IDENTIFIER: US 4107724 A

TITLE: Surface controlled field effect solid state device

DATE-ISSUED: August 15, 1978

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Ralph; John Ernest	Crawley Down	N/A	N/A	GB2

US-CL-CURRENT: 257/43; 136/250, 257/184, 257/66[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Claims](#) | [KMC](#) | [Drawn Desc](#) | [Image](#)[Generate Collection](#)